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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,920	09/15/2006	Carsten Detlefs	056982/00062	7628
31013 7590 09/07/2010 KRAMER LEVIN NAFTALIS & FRANKEL LLP INTELLECTUAL PROPERTY DEPARTMENT 1177 AVENUE OF THE AMERICAS NEW YORK, NY 10036				
EXAMINER				
BURCH, MELODY M				
ART UNIT		PAPER NUMBER		
3657				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

klpatent@kramerlevin.com

Office Action Summary

Application No.

10/565,920

Applicant(s)

DETLEFS ET AL.

Examiner

Melody M. Burch

Art Unit

3657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 1-13 are objected to because of the following informalities: the phrase "an electrically actuatable valve associated with said high pressure compressed air load circuit being switchable by said electronic control unit between a closed position in a de-energized normal state" in lines 11-13 of claim 1 needs to be reworded in light of the earlier recitation of "electrically actuatable valves for supplying compressed air...to said high pressure compressed air load circuit, wherein said electrically actuatable valves are in an open position in a de-energized normal state" in lines 5-7 of claim 1 since the former phrase suggests that the electrically actuatable valve associated with the high pressure circuit is normally open and the latter phrase suggests that the electrically actuatable valve associated with the high pressure circuit is normally closed. Appropriate correction is required. The remaining claims are objected to due to their dependency from claim 1.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 4, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6276761 to Beck in view of US Patent 3432210 to Crouch.

Re: claims 1, 3, 4 and 13. Beck shows in the figure an electronic compressed air system for a vehicle comprising a compressed air supply part shown on the left side of the figure and a compressed air consumer part shown on the right side of the figure, the compressed air supply part including a compressor 11, the compressed air consumer part including a plurality of service-brake circuits 2.1, 2.2 having compressed air load circuits and compressed air reservoirs as disclosed in col. 4 lines 45-47, a high pressure compressed air load circuit 30, and electrically actuatable valves 21,22 for supplying compressed air to the service-brake circuits and the high pressure air load circuit, sensors shown above elements 31 for monitoring pressure in the service brake circuits, and an electronic control unit 15 for evaluating electrical signals from the sensors and for controlling the electrically actuatable valves, an electrically actuatable valve 25 associated with the high pressure compressed air load circuit being switchable by the electronic control unit between a closed position in de-energized normal state and an open position to establish communication with at least one of (i) the service brake circuits and (ii) at least one of the compressed air reservoirs thereof and the compressed air supply part, when compressed air is demanded of the high pressure compressed air load circuit as disclosed in col. 5 lines 1-2, col. 5 lines 9-18, and col. 5 lines 51-54.

Beck discloses being in a closed position in a de-energized state but is silent with regards to the electrically actuatable valves being in an open position in a de-energized normal state.

Crouch teaches in col. 9 lines 55-59 the use of electrically actuatable valves that are normally open in a de-energized state in place of valves that are normally open in an energized state.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the valves of Beck to have been normally open in a de-energized state, as taught by Crouch, in order to provide a means of supplying compressed air to the service brake circuits in a fail safe manner.

Re: claim 11. Beck, as modified, teaches in Beck in the figure the limitation wherein the electrically actuatable valves 21 and 22 and the electrically actuatable valve 25 associated with the high pressure compressed air load circuit are connected to a common compressed air distributor line 20 to which there is connected a compressed air supply line shown in the area at the end of the lead line of number 16 in communication with the compressor.

4. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck in view of Crouch as applied above, and further in view of US Patent 4911617 to Buma et al.

Re: claim 2. Beck, as modified, is silent with regards to the high pressure compressed air load circuit being an air-suspension circuit.

Buma et al. teach in figure 1 the use of a compressed air system wherein a high pressure compressed air load circuit 20 is an air-suspension circuit.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the high pressure compressed air load circuit of

Beck, as modified, to have been an air suspension circuit, as taught by Buma et al., in order to provide a means of leveling a vehicle during its travel along a road.

Re: claim 12. Beck, as modified, teaches in Beck that the system further comprises a check valve 16 disposed in the compressed air supply line and describes the presence of an air dryer, but Beck does not state that the air dryer is disposed in the compressed air supply line.

Buma et al. teach in figure 1 a system comprising an air dryer 7 disposed in the compressed air supply line 2a.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the system of Beck, as modified, to have included the air dryer disposed in the compressed air supply line, as taught by Buma et al., in order to provide a means of purifying and drying the air before it reaches the consuming circuits.

5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck in view of Crouch as applied above, and further in view of US Patent 4799707 to Buma et al.

Beck, as modified, is silent with regards to the system further comprising an electronic control device adapted to control the high pressure compressed air load circuit and to communicate with the electronic control unit via a data line.

Buma et al. teach in figure 1 a system comprising an electronic control device M9 adapted to control the high pressure compressed air load circuit and to communicate with an electronic control unit M8 via a data line shown between M8 and M9.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the system of Beck, as modified, to have further included an electronic control device adapted to control the high pressure compressed air load circuit and to communicate with the electronic control unit via a data line, as taught by Buma et al., in order to provide a means of decreasing the pressure at the delivery port of the compressor to reduce the amount of torque needed to start the compressor to satisfy an air demand request.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beck in view of Crouch as applied above, and further in view of US Patent 4616881 to Muller et al.

Re: claim 7. Beck, as modified, discloses in col. 4 lines 43-47 that each consumer circuit may include a reservoir then gives the example of circuits 2.1 and 2.2 having a reservoir, but is silent with regards to specifically the at least one secondary load circuit being without compressed air reservoirs.

Muller et al. teach in figure 1 the limitation wherein the compressed air load circuits have at least one secondary load circuit III and IV without compressed air reservoirs where as circuits I and II have reservoirs 3 and 4, respectively.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the circuits of Beck, as modified, to have included at least one secondary load circuit without compressed air reservoirs, as taught by Muller et al., in order to provide a means of supplying compressed air without the need for superfluous components.

7. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck in view of Crouch and US Patent 4616881 to Muller et al. as applied to claim 7 above, and further in view of US Patent 6149246 to Terborn et al.

Re: claim 8. Beck, as modified, discloses in Beck at least one secondary circuit 2.3 and 2.4 and Beck, as modified, discloses that element 2.4 is specifically a low pressure circuit, but is silent with regards to the at least one secondary circuit specifically having a lower pressure level than in the service brake circuits.

Terborn et al. teach in col. 3 lines 14-17 the use of one circuit having a pressure that is lower than another.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the at least one secondary circuit of Beck, as modified, to have had a lower pressure level than in the service brake circuits, in view of the teachings of Terborn et al., in order to provide a desired pressure level depending on desired application. For example, one may provide less pressure in the secondary circuit for the parking brake since it is used less frequently than the service brake and since the service brake can be utilized until the parking brake is sufficiently pressurized.

Re: claim 9. Beck, as modified, discloses that the high pressure compressed air load circuit 30 has a pressure level that is higher than in the secondary or low pressure load circuit 2.4 and suggests that the pressure level of the high pressure compressed air load circuit is higher than in the service brake circuits in col. 5 lines 51-54 where it is explained that air under pressure flows from circuit 30 to circuits 2.1 and 2.2, but is

silent with regards to the pressure level between the high pressure compressed air load circuit and the other of the secondary load circuits (circuit 2.3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the at least one secondary circuit of Beck, as modified, to have had a lower pressure level than in the high pressure compressed air load circuit, in view of the teachings of Terborn et al., in order to provide a desired pressure level depending on desired application. For example, one may provide less pressure in the secondary circuit for the parking brake since it is used less frequently than the service brake and since the service brake can be utilized until the parking brake is sufficiently pressurized.

Re: claim 10. Beck, as modified, teach in Beck the limitation wherein the at least one secondary load circuit includes solenoid valves 23, 24 and further comprising a pressure limiting valve 16, which limits pressure from right to left of the valve, interposed upstream from the solenoid valves of the at least one secondary load circuits.

Response to Arguments

8. Applicant's arguments filed 6/17/10 have been fully considered but they are not persuasive. Applicant argues that the disclosure of an open vent valve in a de-energized normal state cannot properly be considered a substitute for electrically actuatable valves for *supplying* compressed air. Examiner reiterates that Applicant's argument suggests that Examiner is attempting to bodily incorporate the vent valve of Crouch into the invention of Beck. In response to applicant's argument that the vent valve does not equate to the valve for supplying compressed air, the test for

obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Examiner maintains that Crouch teaches in col. 9 lines 55-59 that a valve that is in a normally closed position in the de-energized state can be replaced by a valve that is in a normally open position in the de-energized state. It is this general teaching of substituting a normally closed de-energized valve with a normally open de-energized valve on which the Examiner relies, not the bodily incorporation of the Crouch valve into the valve arrangement of Beck.

Examiner also notes that although Applicant argues that the valve of Crouch is a vent valve, Examiner points out that col. 9 line 55-59 describes two valves - 66 and 72. While valve 72 was specifically designated as a solenoid controlled vent valve, valve 66 was described in col. 7 lines 30-35 as having the function of a supply valve for supplying air to reservoirs. Therefore, one of ordinary skill would be inclined to apply the teachings of the operation of one supply valve to the operation of another supply valve.

Applicant then argues that modifying Beck in view of Crouch (modifying a normally closed de-energized valve with a normally open de-energized valve) and stating that the switch achieves the same functionality is similar to deeming "closed" as being equivalent to "open". Examiner disagrees. Examiner emphasizes that Crouch teaches in col. 9 lines 55-59 that it is old and well-known in the art to use normally open

(open in the de-energized state) valves rather than normally closed (open in the energized state) valves. Incorporating this teaching does not result in a switch from a closed valve state to an open valve state as Applicant suggests, but instead results in a switch from an de-energized closed (energized open) valve state to an energized closed (de-energized open) valve state. Therefore, the switch does not change a closed valve state to an open valve state, it simply changes a de-energized closed valve state to an energized closed valve state. In other words, the modification simply changes the way the closed valve state (as well as the open valve state) is achieved.

Finally, Applicant argues that the modification suggested by Examiner's 103 rejection would render the solenoid valve 26 and the relief valve 32 superfluous. Examiner instead views the modification as rendering valves 26 and 32 as redundant fail safe components which help to ensure that sufficient compressed air is supplied to all of the brake circuits in the event of an electrical failure. It is well-known in the art to have redundant fail safe arrangements for improved safety.

Accordingly, the rejections have been maintained.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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mmb
September 1, 2010

/Melody M. Burch/
Primary Examiner, Art Unit 3657